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Ethnic Minority Health and Employment: Ethnic Differences in the Protective Effect of Close Social Ties

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Abstract

First- and second-generation Turkish and Moroccan migrants living in the Netherlands have a disproportionate incidence of health problems and relatively low employment rates. Health problems are an obstacle to employment, yet there is no one-to-one correspondence between health problems and capability to work. Social ties can reduce the negative impact of health problems on employment by providing social support and providing the comfort of feeling embedded in a close social circle. In this study, we examine whether the assumed negative impact of health problems on employment is reduced by the number of close social ties, the quantity of contact, and the proportion of co-ethnics among close social ties, and whether this protective effect varies across ethnic groups. Using survey data from the Netherlands Longitudinal Lifecourse Study ($N = 3911$), we find that close social ties reduce the negative impact of health problems on employment. However, this protective effect depends on both the aspect of social ties which is considered and ethnic background of the individual. Quantity of contact has a protective effect for native Dutch individuals; number of social ties and a higher proportion of co-ethnics had a protective effect for Moroccan individuals, and social ties have no protective effect for Turkish individuals.

Keywords Migration · Health problems · Employment · Social ties · Social buffer mechanism · Ethnicity

Introduction

Turkish and Moroccan migrants have a higher incidence of health problems than native populations in various European countries (Smith Nielsen and Krasnik 2010). When

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looking more specifically at the Netherlands, previous studies found that individuals of Turkish and Moroccan origin have a poorer self-perceived health (Stronks et al. 2001) and report more physical and psychological health problems, more missed days due to health problems, and more long-term health limitations (Reijneveld 1998). Moreover, individuals of Turkish and Moroccan backgrounds have a higher prevalence of depressive symptoms (de Wit et al. 2008; Ikram et al. 2014; Klaufus et al. 2014; Levecque and Van Rossem 2015; Missinne and Bracke 2012; Schrier et al. 2012). This higher incidence of health problems is particularly worrisome when considering the negative impact of health problems on employment. Health problems have been found to have a negative effect on wages and hours worked (Pelkowski and Berger 2004) and to reduce the likelihood to be employed altogether (Cai and Kalb 2006; Chirikos 1993; Pacheco et al. 2014). Health problems could be argued to be yet another obstacle that individuals of Turkish and Moroccan descent have to face on the path to labor market participation. Yet, health problems are often omitted in the literature on migrant and ethnic minority employment.

The statistics on the high incidence of health problems seem to paint a rather bleak picture of the labor market position of individuals of Moroccan and Turkish origin. Yet, there is no one-to-one correspondence between health problems and ability to work. Different factors enable individuals to continue working despite their health problems. One of these factors is, we expect, close social ties and the social support they provide. Previous studies have found that social ties protect individuals from the negative impact of stressors (Barth et al. 2010; Cohen and Wills 1985; Holt-Lunstad et al. 2010; Kessler and McLeod 1985; Kessler et al. 1985; Thoits 1995, 2011; Uchino 2004, 2009; Uphoff et al. 2013). It is likely that close social ties also play a protective role for individuals who suffer from health problems. By providing instrumental, informational, and emotional support (Helgeson 2003; Ishii et al. 2017; Jutagir et al. 2016), social ties can help reducing the impact of health problems on employment. Moreover, according to relational regulation theory, the mere knowledge that one has close social ties results in the positive regulation of individuals' feelings, thoughts, and actions (Lakey and Orehek 2011) by which the negative impact of health problems on employment is reduced. In this study, we examine whether social ties reduce the negative impact of health problems on employment among individuals of Moroccan, Turkish, and native Dutch origin.

Some studies suggest that the protective effect of social ties varies across ethnic groups (Graves and Graves 1985; Ishii et al. 2017; Kim et al. 2008; Liang and Bogat 1994; Mortenson 2006; Taylor et al. 2004; Wang et al. 2010). These studies mainly focused on differences across individuals of Asian and European origin living in the USA. Some more recent studies found cross-group differences in the protective effect of social ties across other ethnic and racial groups in the USA (Molina et al. 2016; Panchang et al. 2016; Shavitt et al. 2016; Sheffler and Sachs-Ericsson 2016). Based on these findings, we may expect differences in the protective effect of social ties across individuals of Turkish, Moroccan, and Dutch origin. To date, no studies have looked into these ethnic cross-group differences. Therefore, we will examine whether the protective effect of social ties differs across individuals of Moroccan, Turkish, and native Dutch origin living in the Netherlands.

In this study, we set out to examine the impact of health problems on employment and whether social ties moderate the assumed negative effect of health problems on

employment. Moreover, based on previous findings across ethnic groups in the USA, we will examine whether there are cross-ethnic differences in this protective effect of close social ties across Dutch natives and individuals of Turkish and Moroccan origin. Lastly, we examine whether having a larger proportion of co-ethnics in one's close social circle has a stronger protective effect than having less co-ethnics in one's close social circle. First, we provide the theoretical background of this study by discussing literature on migrant health and employment, the protective effect of social ties, ethnic differences in the protective effect of social ties and, lastly, the potential benefit of co-ethnic social ties. Subsequently, we examine our research questions by conducting multiple group logistic regression analyses on the Netherlands Longitudinal Lifecourse Study (de Graaf 2010). After discussing the results, we reflect on the implications of our findings on policy and future research.

Theoretical Background

Health and Employment of First- and Second-generation Turkish and Moroccan Migrants

The position of individuals of Moroccan and Turkish origin on the Dutch labor market differs substantially from the position of native Dutch individuals. First- and second-generation Moroccan and Turkish migrants have lower net employment rates (45 and 47% respectively compared to 69% of Dutch natives), higher unemployment rates (21 and 17% respectively compared to 7% of Dutch natives), and a lower standardized disposable income per individual (€17.400 and €18.000 respectively, compared to €25.700 for Dutch natives) (Huijnk et al. 2014). These disparities in labor market position have primarily been explained by differences in human capital (Kanas and Van Tubergen 2009), social capital (Lancee 2010), and discrimination on the labor market (Andriessen et al. 2010). However, the reasons for lower employment rates of migrants are complex and often important factors are overlooked.

Despite the numerous studies finding support for the negative impact of health problems on employment, health problems are often, but not always, overlooked when explaining the lower employment rates of migrants. Statistics on dependence on welfare benefits in the Netherlands show that higher incidence of health problems among individuals of Turkish and Moroccan origin results in a disproportionate dependence on incapacity benefits. In the Netherlands, 11.2% and 9.4% of individuals of Turkish and Moroccan origin, as opposed to 6.9% of native Dutch individuals, are dependent on welfare benefits because they are (partly) unable to work due to health problems (Huijnk et al. 2014). Keizer and Keuzenkamp found that physical and psychological health problems reduce the likelihood to be employed among first- and second-generation Turkish and Moroccan migrants living in the Netherlands (2011). Furthermore, a recent qualitative study found that women of Turkish and Moroccan origin living in the Netherlands often describe the relation between health problems and (un)employment as a vicious cycle (Slootjes et al. 2018). These studies show that health problems are an obstacle to employment for Turkish and Moroccan migrants living in the Netherlands. Based on these

previous studies, we hypothesize that health problems have a negative effect on employment among individuals of native Dutch, Turkish, and Moroccan origin (H1).

The Protective Effect of Close Social Ties

Individuals of Turkish and Moroccan origin living in the Netherlands have a relatively high incidence of health problems, which may form an obstacle to employment. However, different factors enable individuals to continue working despite their health problems. One of these factors is, we expect, close social ties. Social ties may reduce the negative impact of health problems on employment in two different ways.

First, the presence of (close) social ties can have a reassuring and protective effect on individuals. According to relational regulation theory (RRT), general daily interactions with social ties, and not necessarily the explicit provision of social support, result in positive outcomes (Lakey and Orehek 2011). Individuals' feelings, thoughts, and actions are regulated in a positive way through regular social interaction. For individuals with health problems, regular social interaction could positively change feelings, thoughts, and actions concerning their perceived ability to work. This protective effect of the mere presence of social ties has also been supported in research about so-called passive support. Studies have found that the mere physical presence of a friend reduced the negative impact of stress in laboratory settings (Edens et al. 1992; Kamarck et al. 1995; Kamarck et al. 1990). Even only thinking about one's close social ties has been found to reduce the negative impact of stressors on individuals (Ratnasingam and Bishop 2007; Smith et al. 2004). Thus, simply having social ties may already reduce the negative impact of stressors on individuals, irrespective of the actual support these social ties are providing and whether these social ties are physically present. When applying this mechanism to the relation between health problems and employment, we expect that for individuals with health problems, regular social interaction could positively change feelings, thoughts, and actions concerning their perceived ability to work.

A second way through which social ties may reduce the negative impact of health problems on employment is through providing social support. According to the so-called social buffer hypothesis (Cohen and McKay 1984), negative effects of stressors on health and well-being are reduced or even eliminated by receiving social support from social ties. This hypothesized moderation effect has been empirically found in multiple studies across various contexts (Barth et al. 2010; Bowen et al. 2014; Cohen and Wills 1985; Earnshaw et al. 2015; Holtfreter et al. 2017; Holt-Lunstad et al. 2010; Kondrat et al. 2017; Matos et al. 2017; Thoits 1995, 2011; Uchino 2004, 2009). Social support could be influential in the relation between health problems and employment by providing different types of social support. In the literature on social support, researchers usually distinguish between informational support, instrumental support, and emotional support (Helgeson 2003; Ishii et al. 2017; Jutagir et al. 2016). Firstly, social ties can provide informational support on dealing with one's health problems. Secondly, social ties can provide concrete and pragmatic tangible support, like taking over specific tasks or providing resources that enable the individual to continue to work. Lastly, social ties can provide emotional support which can increase self-esteem, the feeling of belonging, and the perception to be cared for, which can have a general

positive effect on the individual that can diminish the negative effect of health problems on employment.

However, the empirical studies testing the relational regulation theory and the social buffer mechanism only focus on how social ties buffer the negative effects of stressors on health problems and well-being. We suspect that social ties may also reduce the negative impact of health problems on employment. The way social ties reduce the negative impact of health problems on employment has not been studied explicitly, yet some qualitative studies about the relation between health problems and employment already provide some support for this mechanism. In a classic sociological study, Pinder (1995) studies the impact of rheumatoid arthritis on employment through qualitative in-depth interviews. In this study, the stories of Elaine, who was forced to exit the labor market because of her health problems, and Sally, who was able to continue working despite her health problems, are compared. Interestingly, the major reason for being able to continue working was the emotional and tangible support offered by one of her close social ties (Pinder 1995). Another qualitative study found that individuals from various ethnic backgrounds indicated that an understanding listening ear, small acts of practical support, and advice from social relations contributed to the ability to continue working despite arising health problems (Qureshi et al. 2014). Moreover, in interviews with Turkish and Moroccan women suffering from health problems, Slootjes and colleagues found that social support is an important factor in enabling first- and second-generation migrant women to remain working despite their health problems (Slootjes and Kampen 2017; Slootjes et al. 2018).

The above studies suggest that the protective effect of social ties (relational regulation theory) and social support (social buffer mechanism) are likely to also be important in the relation between health and employment. As such, based on relational regulation theory, we hypothesize that having more close social ties will reduce the negative impact of health problems on unemployment (H2). Also, based on the social buffer mechanism, we argued that instrumental, informational, and emotional support would reduce the negative impact of health problems on employment. Providing instrumental, informational, and emotional support requires contact. Consequently, we hypothesize that more contact with (close) social ties would reduce the negative impact of health problems on unemployment (H3).

Ethnic Differences in the Protective Effect of Social Ties

Previous research suggests that social ties might not have a universal protective effect; the "protective" effect of social ties varies across ethnic and cultural groups. Differences in cultural norms may play an important role in whether and how social support impacts recipients of social support. Ishii and colleagues suggest that cultural differences in social norms about social accommodation and individual control result in differences in preferences about disclosing problems. Actively seeking social support is argued to be less appropriate in Eastern cultures than in Western cultures due to fears of disrupting harmonious relationships (Ishii et al. 2017). In line with this theory, previous studies found that Asians invoke the help of social ties less often than European-Americans (Aldwin and Greenberger 1987; Kim et al. 2006; Kim et al. 2010; Kim et al. 2008; Mortenson 2006; Shin 2002; Taylor et al. 2004, 2007; Wang et al. 2010). Moreover, for individuals with an Asian background, social ties had either no

protective effect (Chan 1986; Graves and Graves 1985; Kim et al. 2006; Lin et al. 1979), or even a negative effect (Chan 1986; Liang and Bogat 1994), on how stressors influence well-being. Lastly, Asian-Americans perceive social support to be less helpful than European-Americans (Kim et al. 2006; Taylor et al. 2004; Wang et al. 2010).

Even though the majority of these studies focused on a very specific population, comparing Asian-Americans to European-Americans, Kim and colleagues argue that similar findings can be expected among other cultural groups (Kim et al. 2008). A few studies did investigate differences in the social buffer mechanism across other ethnic, racial, and cultural groups. Shavitt and colleagues, for example, found support for the protective effect of social support in the relation between stress and mental and physical health for Mexican-Americans, but not for Non-Hispanic Whites, Korean-Americans, and African-Americans (Shavitt et al. 2016). Moreover, Panchang and colleagues investigated whether social ties buffer the negative effect of acculturation on mental health (Panchang et al. 2016). They found that social support moderated the negative effect of acculturative stress on mental health for Latinas, but not for Latino men and Asian men and women. Another study found differences in the protective effect of perceived social support on health functioning between Caucasian and African-Americans (Sheffler and Sachs-Ericsson 2016). In a study which mirrored our focus on the protective effect of social ties on the negative impact of health problems, Molina and colleagues examined differences in social support across individuals from different ethnic/racial groups after receiving an abnormal mammogram (Molina et al. 2016). They found that Latina and African-American women were less likely to share abnormal results of a mammogram with friends and family and that African-American women reported more withdrawal than non-Latina-White women. Subsequent qualitative interviews revealed that worries about burdening the social network and receiving unwanted pity were the main reasons for these differences. Moreover, non-Latina women received more emotional and informational support whereas African-American and Latina women received more instrumental support. The findings of these studies indicate that differences in the protective effect of social ties do not only exist across Asian-American and European-American individuals, but that differences can also be found among other cultural, ethnic, and racial groups.

The authors of these studies ascribe these cross-group differences in seeking social support and the effect of social support across ethnic groups to cultural differences in social norms (Kim et al. 2006; Kim et al. 2008; Liang and Bogat 1994; Taylor et al. 2004). In these studies, the authors refer to the distinction between more independent and interdependent cultural conceptions of the self (Markus and Kitayama 1991). More independent conceptions of the self result in more independent social relations, "thought to be freely chosen and to entail relatively few obligations", whereas interdependent conceptions of the self results in regarding "group goals as primary and personal beliefs, needs and goals as secondary" (Kim et al. 2008). In support of this argument, Kim and colleagues concluded from correlational and experimental evidence that concerns about negative social consequences, such as losing face, disrupting group harmony, and receiving criticism, caused the ethnic cross-group differences in seeking social support (Kim et al. 2008). The fear to disturb social relations both inhibits seeking social support and results in suppressing or even reversing the protective effect of social ties, due to the worries related to burdening social ties by

disclosing personal issues. Even though these studies were conducted in the USA, we may expect that cross-group differences in the protective effect of social ties also exist across Turkish, Moroccan, and native Dutch individuals living in the Netherlands.

Kim and colleagues, for example, predicted that similar differences would be found when comparing individuals from Western cultures to populations from Middle-Eastern cultures (Kim et al. 2008). Previous research has indeed shown a tendency towards interdependent cultural values among individuals with Turkish and Moroccan backgrounds. Various studies show that Turkish individuals show a clear tendency to interdependent cultural norms, yet also display independent cultural norms (Göregenli 1997; Kagitçibasi 1994; Phalet and Claeys 1993). In line with this tendency to interdependent cultural norms, a study among Turkish elderly found that perceived social support appeared to have no significant protective effect in the relation between stressors and depression (Bozo et al. 2009). Less research has been conducted about the cultural norms among Moroccan individuals. In a study about the cultural capital of young Moroccan children, the author found support for a tendency towards more interdependent cultural norms among Moroccan children and their parents (Pels 1991). The tendency towards interdependent social norms is less pronounced among Turkish and Moroccan individuals than among Asian groups, yet still a clear tendency towards interdependent cultural norms exists. This tendency towards interdependent cultural norms may result in similar concerns among Turks and Moroccans about the negative consequences of disclosing personal issues on social relations as those found among the Asian groups described above. The protective effect of social ties would be weaker or even reversed for individuals of Turkish and Moroccan origin because of their tendency towards interdependent cultural norms and associated concerns about negative social consequences of disclosing personal issues. Hence, we hypothesize that social ties have a stronger protective effect on the negative impact of health problems on employment for native Dutch than for individuals of Turkish and Moroccan origin (H4).

Co-Ethnic Confidants

On the other hand, there are studies which seem to, at least partly, contradict the above explanation. The tacit assumption in the above explanation is that the individuals of Asian origin in these studies live among co-ethnics and that it is in particular in the eyes of co-ethnics that people are worried about the negative social consequences of disclosing personal problems, because they share the same social and cultural norms. They would therefore refrain from seeking help, and in particular so from co-ethnics. Thus, social ties do not help them or even have a counterproductive effect. Continuing on this line of thinking, we hypothesize that having a higher proportion of co-ethnics among one's close social ties would weaken or eliminate the protective effect of social ties for individuals of Turkish and Moroccan origin (H4a).

Yet, there are studies which found that having more people in your social network with the same ethnic background may actually have a positive impact. For example, having a higher proportion of co-ethnics in one's social network has been found to have a protective effect on depression in a study among Jewish-Americans (Pearson and Geronimus 2011). The importance of co-ethnic social relationships in countering

psychological problems is also confirmed in interviews with Mexican migrant women in the USA (Viruell-Fuentes 2007). Confidants with the same ethnic background, or co-ethnics, are likely to have more similar social and cultural norms as the person suffering from health problems. According to the stressor-support specificity model, social support derived from social ties is assumed to only have beneficial effects under certain conditions (Cohen and McKay 1984). Close social ties will only have a beneficial effect when the type of support offered matches with the specific stressor. According to Cohen and McKay (1984), "only those interpersonal relationships that provide the appropriate forms of support will operate as effective buffers." Individuals with the same ethnic background are therefore able to provide culturally appropriate social support which fits with the, often cultural-specific, needs of the individual. Hence, one would expect that a larger proportion of co-ethnics in individuals' close social circle is associated with a stronger protective effect. Therefore, we pose an alternative hypothesis, hypothesizing that a higher proportion of co-ethnics in one's close social circle will strengthen the protective effect of social ties on how health problems influence employment for individuals of Turkish and Moroccan origin (H5b).

Methods

Sample, Procedure, and Operationalization

The majority of Turkish and Moroccan migrants are Muslim and arrived in the Netherlands as so-called guest workers, or by subsequent family reunification, or as marriage migrants. Initially, integration into Dutch society was not encouraged, as guest workers were expected to eventually return to their countries of origin, yet, the majority eventually settled permanently. Turkish and Moroccan guest workers predominantly took up lower-skilled manual jobs often working under poor work conditions. Recently, the second generation is slowly closing the gap with respect to educational attainment and employment, yet considerable disparities between the second-generation and native Dutch peers remain (Huijnk et al. 2014).

We used the first wave of the Netherlands Longitudinal Lifecourse Study (NELSS) to examine the hypotheses formulated above (de Graaf 2010). NELLS was collected by Intomart GfK in the period between December 2008 and May 2010 and is a nationally representative and large-scale survey of the Dutch population aged 15–45. Two-stage stratified sampling was applied. Firstly, 35 municipalities were quasi-randomly selected by region and urbanization. Secondly, a random selection was taken of the population registry based on age and country of birth of the respondent and his/her parents. First- and second-generation migrants from Turkey and Morocco were oversampled. The study consisted of a face-to-face interview and a self-completion questionnaire. The overall response rate was 52%, which is about average for face-to-face surveys in the Netherlands. In total, 5312 respondents were interviewed. Western and non-Western migrants, full-time students, and individuals that did not fill in the self-completion questionnaire were excluded from the analyses, resulting in a sample of $N = 3591$.

The dependent variable *employed* distinguishes employed individuals (1) from all inactive and unemployed individuals (0). *Ethnic background* was defined according to the definition of Statistics Netherlands. Respondents were considered of Turkish or

Moroccan origin when at least one parent was born in one of these countries. As this group both comprises first- and second-generation "migrants," we refer to these groups as being of Moroccan or Turkish origin. It is important to note that these statements do not refer to nationality, but to ethnic origin. *Self-perceived health* was measured by "How would you assess, taken generally, your health?" with possible answer categories ranging from (1) *Excellent* up to (5) *Poor*.

In order to examine the protective effect of social ties, different aspects of individual's close social ties were measured. Firstly, respondents were asked to write down the names of a maximum of five of their closest social ties, possibly including family members, with who they have discussed important personal issues in the past 6 months, representing individuals' close social circle.[1] The *number of confidants* indicates the number of close social ties respondents discussed important personal matters with, varying from none up to five close social ties. Respondents were also asked to indicate how often they are in touch with these close social ties. The variable *quantity of contact* reflects how often individuals talk on average to these up to five close social ties, ranging from a few times a year or less (1) up to almost every day (5). Lastly, all respondents were asked to indicate the ethnic origin of each of the confidants they reported in the item "What is the origin of [confidant x]? This concerns the country of birth of his/her parent(s)." Subsequently, we coded the number of co-ethnics, individuals with the same ethnic background as the respondent, for each respondent. The variable *co-ethnics* was subsequently calculated by dividing the number of reported co-ethnic confidants by the total number of reported confidants and reflects the proportion of co-ethnics (individuals with the same ethnic background as the respondent) in one's close social circle. These different measures of different characteristics of one's close social ties are multifaceted measures, as they assess both structural aspects of the close social circle such as the number of confidants, the quantity of contact, and the proportion of co-ethnics, yet also capture a functional aspect of social ties, namely the act of discussing important personal issues (Uchino and Holt-Lunstad 2015). In order to test the protective effect of social ties, interaction terms were computed between *self-perceived* health and the variables measuring the different aspects of one's close social circle, *number of confidants*, *quantity of contact*, and proportion of *co-ethnics*.

The control variable *education* was measured by the highest completed educational level, ranging from (0) elementary school up to (9) graduate university level. The variable *age* represents the age of the respondents at the time of the survey in years. The categorical variable *female* distinguishes between men (0) and women (1) in the sample.

Descriptive Results

The descriptive results for the total sample and for each ethnic group separately are presented in Table 1. About a quarter of the respondents of Moroccan and Turkish descent were born

[1] More specifically, respondents were presented with the following question: "Most people discuss important personal issues with others. If you look back at the last 6 months, with whom did you discuss important personal matters? […] You can name at the most 5 close social ties. It concerns the most important close social ties. Family members are of course allowed to be mentioned here."

in the Netherlands respectively 23% and 26%. In correspondence with previous findings, we find that individuals of Moroccan and Turkish origin have lower employment rates than native individuals, 64% and 68% respectively compared to 91%. The same holds for health problems; individuals of Moroccan and Turkish origin rate their health problems slightly worse than Dutch natives, scoring 1.67 and 1.81, in comparison to 1.55 for Dutch natives. Individuals of Moroccan and Turkish origin have a considerably lower mean level of education, namely 4.01 and 3.90 compared to 5.60 for Dutch natives. There are considerable differences in the sizes of respondents' close social circles across ethnic groups. Individuals of Moroccan, Turkish and native Dutch origin report 1.79, 2.06, and 2.71 confidants respectively. Even though we are not certain why these cross-group differences occur, this might be caused by a cross-cultural difference in the willingness to disclose personal matters with others. However, when considering quantity of contact, Moroccan and Turkish individuals appear to have slightly more contact with their close social circle, scoring 4.52 and 4.48 respectively, compared to native Dutch, who score 4.32 on quantity of contact. It is not surprising that the close social circles of native Dutch are the least diverse, on average comprising 96% of co-ethnics. The close social circles of Moroccan and Turkish individuals exist for approximately three thirds out of co-ethnics. The ethnic groups were more or less similar in terms of age and gender composition (see Table 1).

Analysis

Multiple group logistic regression analyses were conducted in order to examine the protective effect of social ties on the negative impact of health problems on employment and whether this might differ across ethnic groups. Multiple group analyses allow us to examine whether the effects of the different variables vary across groups. The results for the total sample are presented in Table 2, for the Moroccan group in Table 3, for the Turkish group in Table 4, and for Dutch natives in Table 5. The odds ratios indicate the increase in odds to be employed with one unit increase of that specific variable. Variables with odds ratios larger than 1 have a positive effect on employment, whereas variables with odds ratios smaller than 1 have a negative effect on

Table 1 Means and standard deviations or percentages of independent and dependent variables for the total sample and for individuals of Moroccan origin, individuals of Turkish origin, and Dutch natives in wave 1 of the Netherlands Longitudinal Lifecourse Study

	Range	Total $N = 3591$	Moroccan origin $N = 774$	Turkish origin $N = 820$	Dutch natives $N = 1997$
Employed		79.7%	64.1%	68.0%	90.5%
Female		53.6%	53.6%	50.9%	54.7%
Age	15–49	34.3 (7.29)	33.5 (6.91)	34.7 (7.15)	34.5 (7.47)
Education	0–9	4.87 (2.70)	4.01 (2.85)	3.90 (2.82)	5.60 (2.35)
Self-perceived health	0–4	1.64 (0.90)	1.67 (1.02)	1.81 (.86)	1.55 (.84)
Number of confidants	0–5	2.36 (1.45)	1.79 (1.23)	2.06 (1.36)	2.71 (1.45)
Quantity of contact	1–5	4.39 (0.70)	4.52 (0.75)	4.48 (0.71)	4.32 (0.67)
Proportion of co-ethnics	0–1	0.87 (0.29)	0.77 (0.37)	0.76 (0.36)	0.96 (0.16)

Table 2 Odds ratios from Multiple group logistic regression analyses predicting being employed for the total sample ($N = 3951$) using wave 1 of the Netherlands Longitudinal Lifecourse Study

	Model 0	Model 1	Model 2	Model 3	Model 4
Constant	10.185***	2.680***	2.124*	2.130*	2.248**
Ethnic background (ref = native Dutch)					
Moroccan	0.175***	0.229***	0.233***	0.241***	0.243***
Turkish	0.210***	0.277***	0.293***	0.297***	0.300***
Age		1.021***	1.029***	1.029***	1.029***
Female		0.332***	0.343***	0.336***	0.334***
Education		1.304***	1.296***	1.290***	1.290***
Self-perceived health			0.685***	0.689***	0.677***
#Confidants				1.050	1.026
Health* #confidants				1.034	1.072
Contact quantity					0.888
%Co-ethnics					0.923
Health* contact quantity					1.251*
Health* co-ethnics					1.290
χ^2 (df) p = value	$\chi^2 = 314.02$ (2) $p < .001$	$\chi^2 = 643.31$ (5) $p < .001$	$\chi^2 = 678.42$ (6) $p < .001$	$\chi^2 = 680.78$ (8) $p < .001$	$\chi^2 = 90.072$ (12) $p < .001$
Nagelkerke R^2	$R^2 = .149$	$R^2 = .287$	$R^2 = .304$	$R^2 = .305$	$R^2 = .309$

*Significant at $p < .05$, **significant at $p < .01$, ***significant at $p < .001$ in two-tailed test

employment. Model 0 presents the results of the model only including ethnic background as a predictor of employment. Model 1 provides the results for the model only containing control variables. In model 2, self-perceived health is added to the model. Subsequently, in model 3, number of confidants and the interaction effect between number of confidants and self-perceived health are included. The number of confidants and the associated interaction term are added first because 148 respondents did not report any confidants. For these respondents, information on quantity of contact and proportion of co-ethnics are missing and are automatically excluded from the following model. Lastly, model 4 provides the results for the full model also containing quantity of contact and proportion of co-ethnics and their associated interaction terms with self-perceived health. Testing the full model against the constant models resulted in statistically significant improvements for the Moroccan group ($\chi^2 = 137.93$ (10), $p < .001$), the Turkish group ($\chi^2 = 126.87$ (10), $p < .001$), and the native Dutch group ($\chi^2 = 157.75$ (10), $p < .001$).

Results

Results Total Sample

The results for the total sample in Table 2 show that individuals of Moroccan and Turkish origin are, as expected, less likely to be employed than native Dutch

Table 3 Odds ratios from multiple group logistic regression analyses predicting being employed for individuals of Moroccan origin ($N = 774$) using wave 1 of the Netherlands Longitudinal Lifecourse Study

	Model 1	Model 2	Model 3	Model 4
Constant	0.805	0.691	0.665	0.684
Age	1.018	1.023	1.027	1.027
Female	0.298***	0.303***	0.277***	0.284***
Education	1.272***	1.268***	1.253***	1.244***
Self-perceived health		0.828*	0.821*	0.806*
#Confidants			1.226*	1.172
Health* #confidants			1.304**	1.359***
Contact quantity				1.018
%Co-ethnics				0.580
Health* contact quantity				0.966
Health* co-ethnics				1.899*
χ^2 (df) p = value	$\chi^2 = 109.79$ (3) $p < .001$	$\chi^2 = 114.11$ (4) $p < .001$	$\chi^2 = 130.33$ (6) $p < .001$	$\chi^2 = 137.94$ (10) $p < .001$
Nagelkerke R^2	$R^2 = .216$	$R^2 = .224$	$R^2 = .253$	$R^2 = .266$

*Significant at $p < .05$, **significant at $p < .01$, ***significant at $p < .001$ in two-tailed test

individuals. Adding the different explanatory variables to the model explains a small part of the group differences for Moroccan individuals (model 1 odds ratios = 0.174 $p < .001$ up to model 4 odds ratios = 0.243, $p < .001$) and for Turkish individuals (model 1 odds ratios = 0.210, $p < .001$ up to model 4 odds ratios = 0.300, $p < .001$).

Table 4 Odds ratios from multiple group logistic regression analyses predicting being employed for individuals of Turkish origin ($N = 820$) using wave 1 of the Netherlands Longitudinal Lifecourse Study

	Model 1	Model 2	Model 3	Model 4
Constant	1.154	0.694	0.686	0.717
Age	1.011	1.026	1.026	1.025
Female	0.308***	0.329***	0.337***	0.336***
Education	1.283***	1.284***	1.291***	1.294***
Self-perceived health		0.623*	0.625*	0.615*
#Confidants			0.929	0.914
Health* #confidants			0.983	0.999
Contact quantity				0.910
%Co-ethnics				1.063
Health* contact quantity				1.144
Health* co-ethnics				1.068
χ^2 (df) p = value	$\chi^2 = 104.76$ (3) $p < .001$	$\chi^2 = 124.70$ (4) $p < .001$	$\chi^2 = 125.90$ (6) $p < .001$	$\chi^2 = 126.87$ (10) $p < .001$
Nagelkerke R^2	$R^2 = .196$	$R^2 = .230$	$R^2 = .232$	$R^2 = .233$

*Significant at $p < .05$, **significant at $p < .01$, ***significant at $p < .001$ in two-tailed test

Table 5 Odds ratios from multiple group logistic regression analyses predicting being employed for individuals of native Dutch origin ($N = 1997$) using wave 1 of the Netherlands Longitudinal Lifecourse Study

	Model 1	Model 2	Model 3	Model 4
Constant	1.689	1.614	1.647	1.958
Age	1.027*	1.033**	1.034**	1.032**
Female	0.388***	0.402***	0.394***	0.369***
Education	1.347***	1.326***	1.317***	1.318***
Self-perceived health		0.595***	0.596***	0.551***
#Confidants			1.072	1.010
Health* #confidants			0.984	1.098
Contact quantity				0.742
%Co-ethnics				2.011
Health* contact quantity				2.040***
Health* co-ethnics				1.445
χ^2 (df) p = value	$\chi^2 = 104.76$ (3) $p < .001$	$\chi^2 = 124.70$ (4) $p < .001$	$\chi^2 = 125.90$ (6) $p < .001$	$\chi^2 = 126.87$ (10) $p < .001$
Nagelkerke R^2	$R^2 = .196$	$R^2 = .230$	$R^2 = .232$	$R^2 = .233$

*Significant at $p < .05$, **significant at $p < .01$, ***significant at $p < .001$ in two-tailed test

Yet, significant ethnic cross-group differences in employment remain in the full model (see model 4 in Table 2). The results show that older individuals are more likely to be employed (odds ratios = 1.029, $p < .001$) and women are less likely to be employed than men (odds ratios = .334 $p < .001$). The positive effect of age on likelihood to be employed is not surprising, as the average age of the total sample is relatively young (34 years old). Educational level is also associated with a higher likelihood to be employed (odds ratios = 1.290, $p < .001$). In support of hypothesis 1, health problems are negatively associated with the likelihood to be employed (odds ratios = 0.677, $p < .001$). In opposition to hypothesis 2, the number of close social ties does not reduce the negative impact of health problems on likelihood to be employed for the total sample (odds ratios = 1.072, $p > .05$). In support of hypothesis 3, we find that quantity of contact reduces the negative impact of health problems on likelihood to be employed (odds ratios = 1.251, $p < .001$). Thus, the results support the protective effect of quantity of contact on the negative impact of health problems on employment for the total sample. The proportion of co-ethnics in one's close social circle do not seem to have a significant protective effect in the total sample (odds ratios = 1.290, $p > .05$).

Results of Multiple Group Analysis

Before going into the results about the protective effect of social ties and assumed ethnic differences, we will discuss how the control variables are related to employment for the different ethnic groups. In line with previous research, women appear to be less likely to be employed than men in the Moroccan group (odds ratios = 0.284, $p < .001$), the Turkish group (odds ratios = 0.336, $p < .001$), and the native Dutch group (odds ratios = 0.369, $p < .001$). Educational level is positively associated with the likelihood

to be employed (M odds ratios = 1.244, $p < .001$: T odds ratios = 1.294, $p < .001$; NL odds ratios = 1.318, $p < .001$). Age is only significantly associated with employment for native Dutch, with older individuals being more likely to be employed (odds ratios = 1.032, $p < .01$). The results in model 4 in Tables 3, 4, and 5 show that health problems are negatively associated with the likelihood to be employed for all ethnic groups (M odds ratios = 0.806, $p < .05$; T odds ratios = 0.615, $p < .001$; NL odds ratios = .551 $p < .001$).

The protective effect of close social ties was tested with three interaction terms, looking at the number of close social ties, the quantity of contact, and the proportion of co-ethnics among one's close social ties. The protective effect of close social ties was tested in model 3. The results show that the number of close social ties significantly moderate the negative impact of health problems on employment among individuals of Moroccan origin (odds ratios = 1.304, $p < .01$), providing support for hypothesis 2 among individuals of Moroccan origin. In accordance with hypothesis 3, the quantity of contact with social ties appear to strongly protect native Dutch individuals' likelihood to be employed from the negative impact of health problems (odds ratios = 2.040, $p < .001$), but not for Moroccan and Turkish individuals. Lastly, the results show that, as expected, having more co-ethnics in one's close social circle reduces the negative impact of health problems on employment. This effect was only found for individuals of Moroccan origin (odds ratios = 1.899, $p < .05$), providing support for hypothesis 5b, and not for individuals of Turkish or native Dutch origin, providing support for hypothesis 5a. These results show that, as hypothesized, social ties also reduce the negative impact of health problems on employment, in addition to its often supported protective effect in the relation between stressors and health. However, it is important to note that this effect depends on which aspects of social ties and which ethnic group is considered. Coming back to our hypotheses about ethnic differences, we expected that the protective effect of social ties would be stronger for native Dutch compared to Moroccan and Turkish individuals (hypothesis 4). In accordance with our expectations, we did find support for this effect for native Dutch and no support for Turkish individuals. In the Moroccan group, in opposition to our expectations, both the number of close social ties and proportion of co-ethnics appear to significantly reduce the negative impact of health problems on employment. Therefore, we conclude that there are ethnic differences in the protective effect of social ties.

Discussion

First- and second-generation Turkish and Moroccan migrants have a higher incidence of health problems and lower employment rates than Dutch natives living in the Netherlands. This high incidence of health problems among migrants is associated with a disproportionate dependency on incapacity benefits. Therefore, it is important to look into how the negative impact of health problems on employment could possibly be reduced, both in the general population, but in particular among ethnic minorities. In this study, we examine whether the assumed negative impact of health problems on employment is reduced by the number of close social ties, the quantity of contact, and the proportion of co-ethnics among one's close social circle and whether this protective effect varies across ethnic groups.

The results of this study show that health problems are, as expected, negatively associated with the likelihood to be employed. Differences in the occurrence of health problems between migrants and natives could contribute to the explanation of the migrant-native employment gap. Psychological and physical health, often regarded as important components of human capital (Becker 1964; Fuchs 1966; Mushkin 1962), increase productivity and the ability of individuals to be employed, however are generally overlooked when explaining migrant employment. The results of this study highlight the importance of incorporating health-related variables in explaining migrant employment. It should be noted that this study made use of cross-sectional data (wave 1 of the Netherlands Longitudinal Lifecourse Study). Therefore, all observed findings are only correlational and causality cannot be claimed.

The results of this study confirm that social ties also play a protective role in the negative relation between health problems and employment, not only in the relation between stressors and health. Yet, this effect is dependent both on the aspect of social ties which is considered and the ethnic background of the individual. To start with native Dutch individuals, having more contact with close social ties reduces the negative impact of health problems on employment. For individuals of Moroccan origin, we found that having more close social ties and having a higher proportion of co-ethnics in one's close social circle protected them from the negative impact of health problems on employment, whereas the quantity of contact did not have a protective effect. Lastly, we found no protective effect for individuals of Turkish origin for either of the measures of social ties in the relation between health problems and employment.

These findings raise the question whether the found ethnic cross-group differences in which aspect of social ties has a protective effect may be caused by cross-group differences in the mechanisms behind the protective effect of close social ties. The quantity of contact seems to capture the mechanism of the provision of social support. In order to provide appraisal and informational, tangible, and emotional support, people need to be in touch. The number of confidants, on the other hand, seems to capture the mechanism related to the comforting knowledge of merely having close friends. Whether often in contact or not, knowing that there are close friends out there who you can confide in, can have a general protective effect. When interpreting each aspect of close social ties as reflecting different mechanisms behind the protective effect of social ties, we could hypothesize that for native Dutch the provision of actual social support seems to be more important, whereas for individuals of Moroccan descent, the mere knowledge of having close social ties seems to be more important. This is related to the findings that Asians benefit more from implicit social support and European-Americans more from explicit social support (Taylor et al. 2007) and the greater importance and beneficial effect of verbal expression and disclosure for European-Americans than for Asians (Kim 2002; Kim and Sherman 2007). A form of disclosure is inherent to discussing personal issues, which is at the core of our measurement of close social ties in this study. Similar reasons to the ones we formulated to explain ethnic differences in the protective effect of social ties, namely concerns about negative social consequences, may explain why the quantity of contact is more important for Dutch individuals and the number of close social ties for individuals of Moroccan descent. Unfortunately, we were not able to examine the mechanisms behind the protective effect of social ties more directly. Future studies should further examine whether there is support for cross-group differences in the mechanisms through which

social ties protect individuals and to what extent differences in cultural norms explain these differences.

There were opposing theoretical expectations with regard to the protective effect of the proportion of co-ethnics in one's close social circle. On the one hand, for individuals of Turkish and Moroccan origin, culturally shaped social norms, like fears of negative social consequences, may result in finding no beneficial effect of having more co-ethnics in one's close social circle. On the other hand, according to the stressor-support specificity model (Cohen and McKay 1984), co-ethnics are considered to be more likely to provide culturally appropriate social support and thereby be better able to help individuals to effectively deal with their health problems. The findings of this study point in both directions. For individuals of Moroccan origin, having a higher proportion of co-ethnics in one's close social circle played a protective role in the negative relation between health problems and employment. This beneficial effect of having more co-ethnic confidants was not found for individuals of Turkish origin, and was, due to the homogeneous nature of close social circles of Dutch natives, impossible to detect for Dutch natives.

In accordance with previous studies, we found support for ethnic cross-group differences in the protective effect of social ties. The protective effect of social ties was found for the Moroccan and Dutch groups, but not for the Turkish group. In previous studies, ethnic cross-group differences have often been explained by supposed cross-cultural differences in social norms, referring to the distinction between more independent and interdependent cultural norms. Our findings suggest that potential cross-group differences in cultural norms exist between the Turkish and Moroccan group and Dutch natives, which relate to differences in the protective effect of social ties. The results of this study support ethnic cross-group differences in the protective effect of social ties. However, we were not able to examine the extent to which this is explained by differences in cultural norms. Future studies should examine the supposed role of independent and interdependent cultural norms in explaining ethnic cross-group differences in the protective effect of social ties.

Our findings show that individuals of Turkish and Moroccan origin differ considerably and certain mechanisms, like the protective effect of social ties, cannot be assumed to work universally across these groups. Policymakers should consider these ethnic cross-group differences when creating interventions related to social support, like developing social support groups, for individuals suffering from health problems. As the results show, for some groups, like individuals of Turkish origin, such support groups might not be effective in helping individuals to deal with their health problems. The findings relating to ethnic cross-group differences also support the importance of doing multiple group analysis. If we would have only considered the total sample, it would have seemed that the quantity of contact with social ties would have a protective effect for all individuals. This study highlights the importance of multiple group analysis when theory supports the potential existence of cross-group differences in certain mechanisms.

In conclusion, this study supports the protective effect of social ties in the negative relation between health problems and employment. Furthermore, this study highlights the conditional nature of this protective effect of social ties. The protective effect of social ties depends on the characteristics of close social ties (number of confidants, quantity of contact or proportion of co-ethnics) and the ethnic background of the

individual. Thirdly, this study shows the importance of applying multiple group analyses when the sample size permits. Certain mechanisms and effects, such as the protective effect of social ties, cannot be assumed to operate equally across groups of individuals.

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